23 January 1959

MEMORANDUM FOR RECORD:

SUBJECT: Discussions with [redacted] Jet Propulsion Laboratory 25X1

1. On 22 January 1959, Major Robert Hippert and the undersigned visited Army Ordinance Technical Intelligence for discussions with Dr. [redacted] of JPL on telemetry analysis and read-out. The basic problem posed to [redacted] related to bandwidth requirements for successful read-out of Soviet telemetry. 25X1 25X1

2. The reply of [redacted] is summarized below: 25X1

a. Bandwidth of 30 kc/s is about minimum for successful read-out of telemetry signals.

b. This frequency bandwidth is useable on the conditions:

1. Some degradation of analog read-out is allowable.

2. The entire collection system has low noise characteristics.

3. Sync and frame information is available for synchronization of read-out equipment.

4. A photographic read-out technique developed by JPL is utilized.

3. [redacted] indicated that ideally much higher bandwidths are desirable for reading out information from Soviet telemetry and stressed that the above criteria were of a minimum useable nature. [redacted] stated that he was obtaining the 30 kc/s bandwidth utilizing 15 ips tape speed which is a somewhat better performance than can be normally expected. [redacted] also stated that he would be willing, if asked officially, to conduct tests in which 60 inch recordings would be transferred to 15 inch speed recordings and read-out attempted from this re-recording. It is expected that OSI will request ASA for these tests as no cost was foreseen by [redacted] 25X1 25X1 25X1 25X1

4. [redacted] further indicated that he had calculated that the telemetry signal to be intercepted was of about 300 W peak pulse power output and about 20 - 25 watts average power. 25X1

COORDINATED:

/s/
ROBERT D. HIPPERT
Major USAF

[redacted]
ELINT Staff Officer 25X1

SECRET